

CLAIMS

1. A recording apparatus for recording a duplicate of a product onto a recording medium, the product being a copyrighted digital product having a copy attribute embedded as a watermark thereon, comprising:

acquiring means for acquiring the copy attribute embedded on the product;

changing means for changing the acquired copy attribute into a copy attribute showing no more copy when the acquired copy attribute shows one generation copy;

reading means for reading from the recording medium at least a part of medium ID information recorded on the recording medium in an unalterable state; and

recording means for recording onto the recording medium the duplicate that has both the copy attribute showing no more copy and the read part of medium ID information embedded as a watermark thereon.

2. The recording apparatus of claim 1, wherein the recording medium is an optical disc and the part of medium ID information read by the reading means is information recorded on a burst cutting area of the optical disc.

3. The recording apparatus of claim 2, wherein the information

recorded on the burst cutting area of the optical disc is a lot number assigned during a manufacture of the optical disc.

4. The recording apparatus of claim 1, further comprising:

storing means for storing one of (a) an area code of the recording apparatus, (b) an area code of a package media that recorded the product, and (c) an area code of a provider that supplied the product, wherein

the stored area code is embedded, together with both the copy attribute and the part of medium ID information, as a watermark on the duplicate.

5. The recording apparatus of claim 1, further comprising:

generating means for generating reproduction quality information showing restrictions relating to a reproduction quality of the duplicate, wherein

the generated reproduction quality information is embedded, together with both the copy attribute and the part of medium ID information, as a watermark on the duplicate.

6. A reproduction apparatus for reproducing a duplicate of a product, the product being a copyrighted digital product, and the duplicate being recorded on a recording medium and having embedded as a watermark thereon both a copy attribute and at

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least a part of medium ID information relating to the recording medium, comprising:

acquiring means for acquiring the copy attribute embedded on the duplicate;

reading means for reading from the recording medium when the copy attribute shows no more copy, at least a part of the medium ID information recorded on the recording medium in an unalterable state;

comparing means for judging whether the duplicate is legitimate by comparing the embedded part of medium ID information with the read part of medium ID information; and

reproducing means for reproducing the duplicate only when the comparing means judges that the duplicate is legitimate.

7. The reproduction apparatus of claim 6, wherein the comparing means includes a first judging unit for judging whether the embedded part of medium ID information matches the read part of medium ID information.

8. The reproduction apparatus of claim 7, wherein one of (a) an area code of the recording apparatus, (b) an area code of a package media that recorded the product, and (c) an area code of a provider that supplied the product is embedded, together with both the copy attribute and the part of medium ID

information, as a watermark on the duplicate,

the reproduction apparatus further comprises storing means for storing an area code of the reproduction apparatus,

the comparing means includes a second judging unit for judging whether the area code embedded on the duplicate matches the area code of the reproduction apparatus, and

the reproducing means reproduces the duplicate only when the first and second judging units both judge that there is a match.

9. The reproduction apparatus of claim 7, wherein reproduction quality information, which shows restrictions relating to a reproduction quality of the duplicate, is embedded, together with both the copy attribute and the part of medium ID information, as a watermark on the duplicate, and

the reproducing means reproduces the duplicate in accordance with the restrictions shown in the embedded reproduction quality information only when the first judging unit judges that there is a match.

10. The reproduction apparatus of claim 9, wherein the reproduction quality information includes sampling frequency information, and

the reproducing means restricts the reproduction quality

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of the duplicate by decoding, in accordance with the sampling frequency information, the duplicate read from the recording medium.

11. The reproduction apparatus of claim 9, wherein the reproduction quality information includes quantization bit rate information, and

the reproducing means restricts a reproduction sound quality of the duplicate by decoding, in accordance with the quantization bit rate information, the duplicate read from the recording medium.

12. The reproduction apparatus of claim 9, wherein the duplicate includes digital image data,

the reproduction quality information includes either a scan line number or a pixel number, and

the reproducing means restricts a reproduction image quality of the digital image data included in the duplicate by interpolating either the scan line number or the pixel number.

13. A recording medium having a duplicate of a product recorded thereon, the product being a copyrighted digital product, and the duplicate having embedded as a watermark thereon both a copy attribute and at least a part of medium ID information relating

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to the recording medium, wherein the medium ID information is recorded on the recording medium in an unalterable state.

14. The recording medium of claim 13, wherein the recording medium is an optical disc, and the part of medium ID information read by the reading means is information recorded on a burst cutting area of the optical disc.

15. The recording medium of claim 14, wherein the information recorded on the burst cutting area of the optical disc is a lot number assigned during a manufacture of the optical disc.

16. The recording medium of claim 13, wherein one of (a) an area code of the recording apparatus, (b) an area code of a package media that recorded the product, and (c) an area code of a provider that supplied the product is embedded, together with both the copy attribute and the part of medium ID information, as a watermark on the duplicate.

17. The recording medium of claim 13, wherein reproduction quality information, which shows restrictions relating to a reproduction quality of the duplicate, is embedded, together both with the copy attribute and the part of medium ID information, as a watermark on the duplicate.

18. A computer-readable medium embodying a program for instructing a computer to record a duplicate of a product onto a recording medium, the product being a copyrighted digital product having a copy attribute embedded as a watermark thereon, and the program instructing the computer to perform:

an acquiring step for acquiring the copy attribute embedded on the product;

a changing step for changing the acquired copy attribute into a copy attribute showing no more copy when the acquired copy attribute shows one generation copy;

a reading step for reading from the recording medium at least a part of medium ID information recorded on the recording medium in an unalterable state; and

a recording step for recording onto the recording medium the duplicate that has both the copy attribute showing no more copy and the read part of medium ID information embedded as a watermark thereon.

19. The computer-readable medium of claim 18, wherein the recording medium is an optical disc, and the part of medium ID information read by the reading step is information recorded on a burst cutting area of the optical disc.

20. The computer-readable medium of claim 19, wherein the information recorded on the burst cutting area of the optical disc is a lot number assigned during a manufacture of the optical disc.

21. The computer-readable medium of claim 18, the computer comprising:

storing means for storing one of (a) an area code of the recording apparatus, (b) an area code of a package media that recorded the product, and (c) an area code of a provider that supplied the product, wherein

the stored area code is embedded, together with both the copy attribute and the part of medium ID information, as a watermark on the duplicate.

22. The computer-readable medium of claim 19, the program further instructing the computer to perform:

a generating step for generating reproduction quality information showing restrictions relating to a reproduction quality of the duplicate, wherein

the generated reproduction quality information is embedded, together with both the copy attribute and the part of medium ID information, as a watermark on the duplicate.

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23. A computer-readable medium embodying a program for instructing a computer to record a duplicate of a product onto a recording medium, the product being a copyrighted digital product having a copy attribute embedded as a watermark thereon, and the program instructing the computer to perform:

an acquiring step for acquiring the copy attribute embedded on the duplicate;

a reading step for reading from the recording medium when the copy attribute shows no more copy, at least a part of the medium ID information recorded on the recording medium in an unalterable state;

a comparing step for judging whether the duplicate is legitimate by comparing the embedded part of medium ID information with the read part of medium ID information; and

a reproducing step for reproducing the duplicate only when the comparing step judges that the duplicate is legitimate.

24. The computer-readable medium of claim 23, wherein the comparing step includes a first judging substep for judging whether the embedded part of medium ID information matches the read part of medium ID information.

25. The computer-readable medium of claim 24, wherein one of (a) an area code of the recording apparatus, (b) an area code

of a package media that recorded the product, and (c) an area code of a provider that supplied the product is embedded, together with both the copy attribute and the part of medium ID information, as a watermark on the duplicate,

the computer comprising storing means for storing an area code of the computer,

the comparing step includes a second judging substep for judging whether the area code embedded on the duplicate matches the area code of the computer, and

the reproducing step reproduces the duplicate only when the first and second judging substeps both judge that there is a match.

26. The computer-readable medium of claim 24, wherein reproduction quality information, which shows restrictions relating to a reproduction quality of the duplicate, is embedded, together with both the copy attribute and the part of medium ID information, as a watermark on the duplicate, and

the reproducing step reproduces the duplicate in accordance with the restrictions shown in the embedded reproduction quality information only when the first judging substep judges that there is a match.

27. A recording method for recording a duplicate of a product

onto a recording medium, the product being a copyrighted digital product having a copy attribute embedded as a watermark thereon, including:

an acquiring step for acquiring the copy attribute embedded on the product;

a changing step for changing the acquired copy attribute into a copy attribute showing no more copy when the acquired copy attribute shows one generation copy;

a reading step for reading from the recording medium at least a part of medium ID information recorded on the recording medium in an unalterable state; and

a recording step for recording onto the recording medium the duplicate that has both the copy attribute showing no more copy and the read part of medium ID information embedded as a watermark thereon.

28. A reproduction method for reproducing a duplicate of a product, the product being a copyrighted digital product, and the duplicate being recorded on a recording medium and having embedded as a watermark thereon both a copy attribute and at least a part of medium ID information relating to the recording medium, including:

an acquiring step for acquiring the copy attribute embedded on the duplicate;

a reading step for reading from the recording medium when the copy attribute shows no more copy, at least a part of medium ID information recorded on the recording medium in an unalterable state;

a comparing step for judging whether the duplicate is legitimate by comparing the embedded part of medium ID information with the read part of medium ID information; and

a reproducing step for reproducing the duplicate only when the comparing step judges that the duplicate is legitimate.

29. A recording apparatus for recording a duplicate of a product onto a recording medium, the product being a copyrighted digital product having a copy attribute attached thereon, comprising:

acquiring means for acquiring the copy attribute embedded on the product;

changing means for changing the acquired copy attribute into a copy attribute showing no more copy when the acquired copy attribute shows one generation copy;

reading means for reading from the recording medium at least a part of medium ID information recorded on the recording medium in an unalterable state; and

recording means for recording onto the recording medium the duplicate that has both the copy attribute showing no more copy and the read part of medium ID information embedded as a

watermark thereon.

30. A reproduction apparatus for reproducing a duplicate of a product, the product being a copyrighted digital product, and the duplicate being recorded on a recording medium and having attached thereon both a copy attribute and at least a part of medium ID information relating to the recording medium, comprising:

acquiring means for acquiring the copy attribute embedded on the duplicate;

reading means for reading from the recording medium when the copy attribute shows no more copy, at least a part of medium ID information recorded on the recording medium in an unalterable state;

comparing means for judging whether the duplicate is legitimate by comparing the embedded part of medium ID information with the read part of medium ID information; and

reproducing means for reproducing the duplicate only when the comparing means judges that the duplicate is legitimate.